

Production of isoamylenes ...

S/064/61/000/003/003/009
B101/B203

with 60-65% sulfuric acid. Optimum temperature of isomerization was 270°C. The degree of isomerization was controlled on the basis of the refractive index. Table 3 gives the results. The advantages of the described procedure are: 1) high selectivity, 2) the resulting amyl chloride is free from organic sulfur compounds, 3) low pressure and low temperatures, 4) after removal of the isoamylenes from the PAF, the n-amylenes can be worked into methyl propyl ketone. Isomerization of 3-methyl butene-1 to 2-methyl butene-2 widens the raw-material basis for isoprene production. If the isomerization is not performed, the synthesis of methyl propyl ketone also yields methyl isopropyl ketone which is another valuable solvent. The low content of diene hydrocarbons in the PAF could be utilized by extractive distillation by means of dimethyl Sulfolane (Ref. 6; Patent USA 2,623,844; 1952). There are 3 tables and 6 non-Soviet-bloc references.

Card 4/7

ROZANTSEV, E.G.; KLIMENKO, M.Ya.; MYSHKIN, A.Ye.

Recovery of *sio*-arylenes from the pentane-arylene fraction.

Khim. prom. no.3:172-174 Mr '61.

(MIRA 14:3)

(Butene) (Pentane)

KLIMENKO, M.Ya.; VERKHOVSKAYA, Z.N.; VYSTAVKINA, L.B.

Dehydration of trimethylcarbinol on ion exchange resins. *Neftekhimiya*
1 no.5:630-638 8-0 '61. (MIRA 15:2)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov
i organicheskikh produktov.
(Mehtanol)(Dehydration)(Ion exchange resins)

5.3300
15.9201

28939
S/063/61/006/004/008/010
A057/A129

AUTHORS: Menyaylo, A. T., Klimenko, M. Ya., Verkhovskaya, Z. N., Afanas'yev, M. M.

TITLE: Extraction of isobutylene from butane-butylene mixtures

PERIODICAL: Zhurnal vsesoyuznogo khimicheskogo obshchestva imeni D. I. Mendeleeva, v. 6, no. 4, 1961, 470 - 471

TEXT: Isobutylene is manufactured usually from C_4 fractions of pyrolytic gas or from products of dehydrogenation of butane and isobutane. In the present paper a patented method (USSR patent no. 16207 of September 30, 1955, and no. 122746 of November 5, 1958) for extraction of isobutylene is described. The method is based on a liquid-phase hydration of isobutylene in fraction C_4 to trimethylcarbinol and subsequent dehydration in presence of cation exchange resins with an active sulpho-group [KY-2 (KU-2), C6C (SBS), CDA-3 (SDV-3) types] as catalyst. During hydration isobutylene is in the gaseous phase, while the water flows down the granulated catalyst. Some experimental results presented in Table 1 were obtained on a laboratory circulation apparatus with tubular reactor (diameter 35 mm, height 800 mm) filled with the catalyst (200 ml charge). Experiments no. 1 and 2 demonstrate that X

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Extraction of isobutylene from butane-butylene mixtures

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decrease of molar ratio between water and isobutylene does not effect the productivity of the catalyst or olefin conversion, but increases correspondingly the concentration of alcohol in the condensate. Decrease of isobutylene content in the C_4 fraction decreases conversion, thus to maintain a high conversion, the pressure and contact time must be increased (see experiment no. 5). After 600 hrs use the catalyst 8B8 did not show changes in activity. The obtained trimethylcarbinol condensates were rectified and an azeotropic mixture of 88.3% trimethylcarbinol and 11.7% water was obtained with reagent purity (according to IREA). Dehydration of the mixture was carried out with the same cation exchange resins in a 250 ml flask using 5 g resin and 50 ml azeotropic mixture and heating on a water bath. A 100% dehydration was effected with all three types of catalysts, the best productivity showed the SDV-3 cation exchange resin. During 800 hrs of experiments KU-2 catalyst showed a 15% decrease in activity after 30 hrs and following constant activity. According to data given by VNIISK butyl-rubber manufactured from this isobutylene has a molecular weight 25% higher than a product manufactured from isobutylene obtained by existing industrial devices. There are 2 tables and 1 Soviet-bloc reference.

Card 2/3

28939- 3/063/61/006/004/008/010
 Extraction of isobutylene from butane-butylene mixtures A057/A129

ASSOCIATION: Nauchno-issledovatel'skiy institut sinteticheskikh spirtov (Scientific Research Institute of Synthetic Alcohols)

SUBMITTED: October 4, 1960

Table 1. Experimental results of the liquid-phase hydration of isobutylene (catalyst; SBS cation exchange resin; temperature 100°C)

Legend: (1) no. of the experiment; (2) pressure in atm; (3) concentration of isobutylene in the gas (vol. %); (4) molar ratio H_2O/C_4H_8 ; (5) volume rate 1/1-hr; (6) contact time in sec; (7) concentration of the alcohol in the condensate (vol. %); (8) productivity of the catalyst g/1-hr; (9) conversion of isobutylene per run in %

(1) №№ опы- тов	(2) Давление в атм	(3) Концентрация и-бутена в газе % (объемн.)	(4) Молярное отношение H_2O/C_4H_8	(5) Объемная скорость л/л-час	(6) Время контакта в сек.	(7) Концен- трация спирта в конденса- те % (мас)	(8) Производи- тельность катализатора г/л-час	(9) Конверсия и-бутена за проход %
1	10	96,6	18,5	295	89	9,3	439	46,7
2	10	97,0	4,0	292	90	33,9	436	46,9
3	10	28,0	4,2	302	87	5,1	58	23,4
4	10	18,0	4,1	326	81	2,8	31,0	19,2
5	16	2,9	4,2	282	114	0,6	5,8	21,6

Card 3/3

ARBATSKIY, A.V.; GRIGOR'YEV, A.A.; KLIMENKO, M.Ye.

Preparation of a new flotation reagent - 1,1,3-triethoxybutane.
Khim.prom. no.3:176-181 M- '62. (MIRA 15:4)
(Butane)

VERKHOVSKAYA, Z.M.; VYSTAVKINA, L.B.; KLIMENKO, M.Ya.; TEVLINA, A.S.;
TROSTIANSKAYA, Ye.B.

Coarse-grained ion exchangers as catalysts of the hydration
of olefins and dehydration of alcohols. Khim.prom. no.4:248-
250 Ap '62. (MIRA 15:5)
(Ion exchange resins) (Hydration) (Dehydration (Chemistry))

SOKOLOV, A.V.; BERGER, I.I.; GUROVICH, R.E.; KLIMENKO, M.Ya.;
ZAITSEVA, S.S.; MOTINA, G.L.

Method of refining synthetic ethyl alcohol. Khim.prom.
no.5:327-330 My '62. (MIRA 15:7)
(Ethyl alcohol)

VISHNYAKOVA, T.P.; PAUSHKIN, Ya.M.; KLDMENKO, M.Ya.; MAR'YASHKIN, N.Ya.

Oxidation of η -butylenes to methyl ethyl ketone in the presence of a palladium chloride catalyst. *Izv.vys.ucheb.zav.; khim.i khim.tekh.* 7 no.6:989-992 '64. (MIRA 18:5)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni Gubkina, kafedra neftekhimicheskogo sinteza.

VERKHOVSKAYA, Z.N.; VYSTAVKINA, L.B.; KLIMENKO, M.Ya.

Methods of production of diphenylolpropane. Khim. prom. 41 no. 3;
170-174 No 169. (MIRA 18:7)

KLIMENKO, N.

29075-Cherty gryadushchego. (Kl75-letiyu Onesh Mashinostroit Zavoda Karelo-
fin SSR Ocherk) Na Rubezhe (Petrozavodsk), 1949, No. 7, s. 67-76

80: Letopis' Zhurnal'nykh Statey, Vol. 39, Moskva, 1949

14(5)

804/92-59-2-29/40

AUTHOR: Klimenko, N.

TITLE: Oilfields at Sakhalin (Na Sakhalinskikh neftyanykh promyslakh)

PERIODICAL: Neftyanik, 1959, Nr 2, pp 29-30 (USSR)

ABSTRACT: At the extreme northern point of Sakhalin Island a town of oilmen called Okha emerged thirty years ago in a place previously a dense tayga. The history of this petroliferous region and the unsuccessful attempts made in the nineteenth century to develop it and organize petroleum production are outlined by the author. He states that the region was not vitalized until 1925-1926, when the Soviet government sent its first geological expeditions. The first borehole which produced petroleum on Sakhalin Island was drilled thirty years ago by drillers from Baku and Groznyy. Advanced drilling methods such as turbine drilling, and modern petroleum production methods such as hydraulic fracturing, electric heating of the bottom-hole zone, etc. were introduced soon after petroleum production started. A number of well organized oilfields now exist in the northern part of the island. In addition to oilmen from Baku and Groznyy a considerable contribution to the development of the area was made by members of the Young Communist League.

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Oilfields at Sakhalin

SOV/92-59-2-29/40

With the increasing production of petroleum the importance of the town of Okha grows as well. A number of streets in the town are now paved. This makes the sage of motor vehicles along streets, previously impassable, possible and pass- easy. Schools and kindergartens are put at the disposal of oilmen's children. Telephone lines now connect the town with various cities of the Soviet Union. There is a photograph showing an old derrick erected at Okha in the 19th century.

Card 2/2

Klimenko, N.

FAYZINGER, S.; KLIMENKO, N.

Interindustry conference of efficiency promoters and inventors
of mining enterprises of the Office of Tin and the Office of
Molybdenum. TSvet.net, 28 no.4:74-75 J1-Ag '55. (MIRA 10:11)
(Nonferrous metal industries)

GARTVIO, V., inshener; KLIMENKO, N., inshener.

Gas turbine installations on ships. Mor. flot 16 no.10:
29-31 0 '56.

(MLRA 9:11)

(Marine gas turbines)

KLIMENKO, N.

Competition among Sakhalin coal miners. Mast. ugl. 8 no.11:14
N '59. (MIRA 13:2)

1. Zavednyushchiy proizvodstvenno-massovym otdelom Sakhalinskogo obkoma profsoyusa rabochikh ugol'noy promyshlennosti.
(Sakhalin--Coal mines and mining)

KLIMENKO, N.

Disseminator of aviation knowledge. Kryl.red. 8 no.6:5 Ja '57.
(MLRA 10:8)

1. Instruktor Ordshonikidsevskogo raykoma Dobrovol'nogo obshchestva
soдействия armii, aviatsii i flotu.
(Boikov, Ivan Timofeevich)

KLIMENKO, N. (Mikhaylovskiy rayon Zaporozhskoy oblasti)

A soldier returned to the collective farm. Voen. znan. 41 no.8:32-33
Ag '65, (MIRA 18:7)

ACC NR: AP6031843

(N)

SOURCE CODE: UR/0375/66/000/007/0076/0083

AUTHOR: Dorofeyov, I. D. (Engineer; Rear Admiral); Bukin, P. Ye. (Engineer; Captain 2d Rank; Candidate of Technical Sciences); Klimenko, N. A. (Engineer; Captain 2d Rank); Rikhter, A. A. (Engineer; Captain 1st Rank Reserve; Candidate of Technical Sciences)

ORG: None

TITLE: Naval propulsion engineering during the years of Soviet power

SOURCE: Morskoy sbornik, no. 7, 1966, 76-83

TOPIC TAGS: marine engineering, marine engine, diesel engine, gas turbine engine, nuclear propulsion engine, engine performance characteristic, engine reliability

ABSTRACT: The status of propulsion machinery building, as a base for powerful propulsion installations, is of great significance for the building of a navy. The absence, in the past, of a strong machinebuilding base was the result of the dependence of the Russian fleet on foreign states for propulsion engineering. The main propulsion equipment for combatant ships was made abroad, or on foreign license. The history of the development of "classic" steam and diesel installations is reviewed, as are such new installations as atomic powered and gas turbine ones. Certain of the qualitative and quantitative characteristics of the various types of installations are listed for purposes of comparison. Orig. art. has: 5 figures and 2 tables.

SUB CODE: 13,15/SUBM DATE: None

Card 1/1

21

KIRILYUK, Ye.V.; BORISOV, V.I.; KLIMENKO, N.A.; MAROCHEK, Ye.I.

Results of the use of nutrient media from the meat and stomachs of sea animals of the Far East sea basin for the determination of the pathogenicity of diphtheria bacteria. Trudy VladIEMG no.2:247-248 '62. (MIRA 18:3)

1. Is Vladivostokskogo nauchno-issledovatel'skogo instituta epidemiologii, mikrobiologii i gigiyeny; Tikhookeanskogo nauchno-issledovatel'skogo instituta rybnogo khozyaystva i okeanografii i Vladivostokskoy gorodskoy sanitarno-epidemiologicheskoy stantsii.

FINNISH. I.F.

Mechanical removal of scale from boiler tubes. Sakh. prom. 31
no.2:26-27 P '57. (MLA 10:4)

1. Trest Sakhamen'.
(Boilers--Incrustations)

KLDIENKO, N.G.

Determination of the pH of the beginning of precipitation of cerium and titanium. N. G. Kldienko and V. S. Syrtanovskii. *Zhurnal Khim. Fiz.* 19, 1028-31 (1947).
The data were made by electrometric titration of the sulfates with NaOH. The pptn. of Ce depends on its initial concn., but at 0.012-0.003 g. at./l. the pptn. region is pH 0.37 to 0.38 for pptn. of the hydrates of quinque- and trivalent oxides. The pptn. of Ti, however, commences at pH 1.5 for the quadrivalent form, and pH 4 for the trivalent state. At the b.p., the pH values in all cases are shifted to greater acidity, but the differences between Ce and Ti remain almost the same as observed at room temp.
G. M. Kosolapoff

2
5

MELOGOVOROV, D.I.; KLIMENKO, N.O.

Use of hydraulic cyclones in sludge concentration. TSvet.net.29
no.1:19-21 '56. (MIRA 9:6)
(Tungsten ores) (Cassiterite) (Flotation)

KLIMENKO, N.G.

137-1958-3-4534

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 3, p 9 (USSR)

AUTHORS: Klimenko, N.G., Shcherbakova, S.N.

TITLE: Development of a Rational System for the Separation of Pyrite-Arsenic Concentrates and of Old Cakes, With Resulting Rich Gold-Arsenic Concentrates, and of Subsequent Cyanidation Treatment of Pyrite Tailings (Razrabotka ratsional'noy skhemy razdeleniya piritno-mysh'yakovogo kontsentrata i lezhalykh kekov s polucheniym bogatyykh zoloto-mysh'yakovyykh kontsen-tratov i posleduyushchey obrabotki piritnykh khvostov tsianirovaniyem)

PERIODICAL: Tr. n.-i. gornorazved. in-ta "Nigrizoloto", 1957, Nr 22, pp 110-116

ABSTRACT: An investigation conducted in order to study conditions of separation of arsenic-pyrite products of the Darasun plant, has shown that a supply of As-concentrate may be obtained both from the current separation tailings and from cyanidation cakes of previous years, accompanied by concurrent separation of pyrite concentrate intended for cyanidation. It is established that the production indices of the process depend on the preparation of

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137-1958-3-4534

Development of a Rational System for the Separation of Pyrite-Arsenic (cont.)

material prior to the separation flotation; this includes desliming and the removal of excessive amounts of reagents by means of a hydro-cyclone. During the separation in a cyclone, thin slimes are drained off together with the outflow from the current separation tailings or from the cakes of previous years in amounts equal to 10 percent and 17 percent of the feed, respectively. Drain losses of Au and As amount to 3-4 percent, and 4-5 percent, respectively. 85 percent of the collector contained in the pulp are floated. The metallic content in the hydro-cyclone's sand is increased in the process of desliming. The system recommended and the regimen for flotation are also shown.

A. Sh.

Card 2/2

137-58-4-6372

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 6 (USSR)

AUTHORS: Klimenko, N. G., Shapiro, A. P., Shcherbakova, S. N.

TITLE: Technical Aid to the Dzhidinskiy Kombinat. in Organizing an Experimental Hydrocyclone Dressing Mill (Okazaniye tekhnicheskoy pomoshchi Dzhidinskomu kombinatu po organizatsii opytnoy ustanovki dlya obogashcheniya v gidrotsiklone)

PERIODICAL: Tr. N. -1. gornorazved. in-ta "Nigrizoloto," 1957, Nr 22, pp 144-148

ABSTRACT: The results of a study in a pilot plant of the possibility of employing a hydrocyclone to beneficiate granular tailings of the Dzhidinskaya Tungsten Plant in heavy suspensions is described. The layout of a succession of equipments for the pilot plant is presented and described.

A. Sh.

1. Ores--Processes 2. Hydrocyclones--Applications

Card 1/1

SOV/137-58-10-20392

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 10, p6 (USSR)

AUTHORS: Klimenko, N.G., Shcherbakova, S. N.

TITLE: Utilization of Hydrocyclone for Desorption of Flotation Reagents
(Primeneniye gidrotsiklona dlya desorbtsii flotatsionnykh reagentov)

PERIODICAL: Tr. n.-i. gorno-razved. in-ta "Nigrizoloto", 1957, Nr 23,
pp 122-124

ABSTRACT: A presentation is made of comparative experiments in the removal of collector from the surface of particles by passing a pulp through a hydrocyclone (H) or by the use of activated charcoal and Na_2S . The experiments were conducted with an As pyrite product resulting from selective separation of bulk concentrate in the flotation of a complex ore containing arsenopyrite. The work was performed with the assistance of radioactive isotopes. Butyl xanthate containing the radioisotope, S^{35} , was used. It is established that 85% of the collector is washed off in the H and drains out. Desorption with the aid of Na_2S followed by repeated washing removes only 25% of the collector. Activated charcoal adsorbs 52% of the

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SOV/137-58-10-20392

Utilization of Hydrocyclone for Desorption of Flotation Reagents

collector. The H showed the highest efficiency in removing the reagent from the pulp. In subsequent work, the selection of pyrite and arsenopyrite from sands by means of the H yielded favorable results when the arsenopyrite was acidified with chloride of lime.

K. A.

1. Ores--Processing
2. Industrial equipment--Performance
3. Minerals--Flotation
4. Radioisotopes--Applications
5. Activated charcoal--Performance

Card 2/2

137-58-4-6370

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 6 (USSR)

AUTHOR: Klimenko, N. G.

TITLE: Technical Aid to the Kirgiz Kombinat in Introducing a Combination Procedure for Upgrading (Okazaniye tekhnicheskoy pomoshchi Kirgizskomu kombinatu po vnedreniyu kombinirovannoy skhemy obogashcheniya)

PERIODICAL: Tr. Nri. gornorazved. in-ta "Nigrizoloto," 1957, Nr 24, pp 109-110

ABSTRACT: The peculiarities of the given ore, as far as processing procedures are concerned, consist of the fine dissemination of the cassiterite (0.05 mm), the overcommunion of the latter in the initial operations, and the presence of considerable quantities of minerals having sp. gr. similar to cassiterite. In accordance with the foregoing, a beneficiation procedure was developed employing gravitation for the large classes and flotation for the fine classes, with elimination of silt from the product before flotation in a hydrocyclone. An acid medium (pH 5.8) is recommended for cassiterite flotation, and a mixture of oleic acid and kerosene as collector. A. Sh.

Card 1/1

1. Ores--Processes
2. Ores--Grading
3. Flotation--Applications
4. Gravity--Applications

137-58-4-6377

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 6 (USSR)

AUTHOR: Klimenko, N. G.

TITLE: Laboratory and Pilot-plant Tests of Beneficiation in Heavy Suspensions in Hydrocyclones (Laboratornyye i polupromyshlennyye ispytaniya po obogashcheniyu v tyazhelykh suspenziyakh v gidrotsiklone)

PERIODICAL: Tr. N. -1. gidrorazved. in-ta "Nigrizoloto," 1957, Nr 24, pp 111-115

ABSTRACT: The work included the launching & development of a mill at the Dzhidinskiy Kombinat and laboratory tests of the possibility of upgrading tailings of the Bukuka Plant. The third section of the Dzhidinskaya Plant is assigned to the beneficiation of tailings of the tungsten department produced in previous years. The procedure provides for classification of the initial material into the 0.9 mm class, and beneficiation of the undersize on tables. The oversize is beneficiated in a hydrocyclone by means of heavy suspensions, with subsequent fining of the heavy fraction on tables after completion of crushing. Sulfide concentrate obtained at the factory was used to provide additional weight. The flow of the process for

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137-58-4-6377

Laboratory and Pilot-Plant Tests (cont.)

upgrading the raw material used at the Bukuka Plant is presented. After it is tested in pilot-plant conditions, and if flotation is the procedure finally decided upon, beneficiation in heavy suspensions may be recommended as a preliminary method of conditioning before flotation.

A. Sh.

1. Ores--Processes
2. Hydrocyclones--Applications

Card 2/2

10(4), 14(0)

SOV/98-59-9-14/29

AUTHOR: Moiseyev, I.S., and Klimenko, N.G., Engineers

TITLE: Ground Compaction by Self-Propelled Dump Trucks
"MAZ-525"

PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, 1959, Nr 9
p 46 (USSR)

ABSTRACT: The author describes the first Soviet construction of an earth dam compacted exclusively by rolling of self-propelled dump trucks, which serve at the same time for earth transportation. The experiment was carried out during construction of the 12,000,000 cu m earth dam for the Irkutsk GES; for rolling the "MAZ-525" self-propelled dump trucks, the weight of which, when loaded, amounts to 50 tons. The earth was placed in 1-1.5-m layers; a planned system of earth transportation, which enabled an optimum compaction, was applied. There are 1 photograph and 2 graphs.

Card 1/1

PETROVSKAYA, N.V.; **KLIMENKO, N.G.**; **GINSBURG, A.I.**, nauchnyy red.;
YERCHOV, A.D., glavnyy red.; **CHERNOSVITOV, Yu.L.**, zam. glavnogo
 red.; **SHMANNIKOV, I.V.**, zam. glavnogo red.; **ZVEREV, L.V.**, red.;
ZUBARIN, M.N., red.; **KRUYTER, V.M.**, red.; **MONROUSOV, V.A.**, red.;
SOLOV'YEV, D.V., red.; **KHRUSHCHOV, M.A.**, red.; **STOKEROV, A.G.**,
 red.isd-vs; **IVANOVA, A.G.**, tekhn.red.

[Industrial requirements for the quality of mineral raw materials;
 handbook for geologists] Trebovaniya promyshlennosti k kachestvu
 mineral'nogo syr'ya; spravochnik dlia geologov. Izd.2., perer.
 Moskva, Gos.nauchno-tekhn.isd-vo lit-ry po geol. i okhrane neдр.
 No.71. [Selenium and tellurium] Selen i tellur. Nauchn.red. A.I.
 Ginsburg. 1960. 45 p. (MIRA 14:1)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut mine-
 ral'nogo syr'ya.
 (Selenium ores) (Tellurium ores)

S/137/61/000/011/041/123
A060/A101

AUTHORS: Klimenko, N. G., Tsarenko, L. V.

TITLE: Technical characteristics and the study of dispersed elements in the ore of one of the Southern Ural deposits

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 11, 1961, 9, abstract 11064 ("Tr. Tsentr. n.-i. gornorazved. in-ta", 1960, no. 39, 48 - 49)

TEXT: The main useful components besides Cu are primary sulfides. Of the dispersed elements the ones having an industrial value are Se and Te, mainly compounded with FeS_2 in the form of isomorphic admixtures. Their separation in independent concentrates is inexpedient because of their fine dispersion and low content. In order to improve the concentration schedule of Sibay ores, it is recommended to add cationite mark KY-1 (KU-1) in the crushing operation in order to ward off the activation of the ZnS , and also crushed cyanide in the proportion 1.5 kg/ton. Anionite mark ЭПД-10П (EPD-10P) may be used for the sorption of excess ions of cyanide. Cyanide in the proportion 50 g/ton is used in the lime medium for a better depression of the pyrite. It is recommended to use NH_4Cl in

Card 1/2

Technical characteristics and...

S/137/61/000/011/041/123
A060/A101

the metallurgical separation of the Cu and FeS_2 concentrates in order to increase the extraction of Se and Te.

A. Shmeleva

[Abstracter's note: Complete translation]

✓

Card 2/2

S/137/61/000/012/027/149
A006/A101

AUTHORS: Klimenko, N. G., Kalashnikova, T. M.

TITLE: Technological properties and investigation of dispersed elements in ores of the Uchaly deposit

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 12, 1961, 11, abstract 12271 ("Tr. Tsentr. n.-i. gornorazved. in-ta", 1960, no. 39, 50 - 51)

TEXT: The authors investigated complex pyrite-copper-zinc ore composed of pyrite with sphalerite and chalcopyrite inclusions. It contained non-metallic minerals such as baryta and quartz. Fine mutual intergrowth of mineral components was observed. Rare and dispersed elements are connected with sulfide minerals of Cu, Zn, Pb and Fe; Au is also associated with the sulfides. The authors determined mineral forms of Se and Te occurrence, oxidizability of the ore, and causes for the different behavior of pyrite. It was established that fine-grained pyrite is best suited for flotation. Recommendations are given for the technological conditions of processing these ores.

A. Shmeleva

[Abstracter's note: Complete translation]

Card 1/1

S/137/61/000/011/040/123
A060/A101

AUTHORS: Klimenko, N. O., Kalashnikova, T. M.

TITLE: Technology of concentration and extraction of dispersed elements from pyrite ore

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 11, 1961, 9, abstract 11063 ("Tr. Tsentr. n.-i. gornorazved. in-ta", 1960, no. 39, 45 - 47)

TEXT: The main ore minerals are pyrite, chalcopyrite, sphalerite, bornite, and the non-ore minerals are quartz, calcite, and chlorite. It was established that Cd forms a noticeably higher concentration in Zn concentrate of Cu-Zn ore and in the Cu concentrate of sulfur pyrite ore; Se is concentrated in Cu concentrate but > 80% is combined with the pyrite; Te is associated with pyrite, and the concentration in Cu concentrate is 2-fold or 3-fold; Mo and Au are combined with the pyrite, although the Au yields 2 or three times higher concentrations in Cu concentrate. An efficiency analysis was carried out. A scheme is proposed for the concentration of a mixture of ores which includes grinding to 60% - 0.074 mm; first basic copper flotation with one frothing agent and the production of a conditional concentrate; down to 90% - 0.074 mm; the second basic copper

Card 1/2

Technology of concentration and...

S/137/61/000/011/040/123
A060/A101

flotation; a control flotation, regrinding of the intermediate product of the control flotation down to 100% - 0.043 mm; 3rd basic copper flotation, zinc flotation from the tails of the control flotation. Cationite KY -1 (KU-1) is used to prevent the activation of ZnS, and cyanide is used for the deactivation of the ZnS. In order to raise the Se and Te extraction, it is recommended to add NH_4Cl or $(\text{NH}_4)_2\text{SO}_4$ during the roasting, whose temperature should be kept at 300 - 400°C. ✓

A. Shmeleva

[Abstracter's note: Complete translation]

Card 2/2

KLIMENKO, N.G.; BERLINSKIY, I.I.

Conference on S.I.Pol'kin's book "Flotation of rare metal and tin
ores." Izv.vys.ucheb.zav.; tsvet.met. 5 no.1:162-163 '62.
(MIRA 15:2)

(Flotation) (Nonferrous metals) (Pol'kin, S.I.)

B. ab.

KLIMENKO N. I.

B. 2 sugar, starch + ...

Installation of No. 1111 system for drying white sugar. N. I. Klimenko (Soviet Patent, 1961, No. 4, 25-27; Sov. Ind. Adv., 1961, 12, 109).—A drum dryer is described in which both drying and cooling are accomplished. The sugar and air move counter-currently, the air being preheated as it passes into successive zones. P. 2. Adv.

CAUTION

An excursion of students to shops of an automobile repair plant
as part of course "The automobile," Politekh. obuch. no.10:29-34
0 '57. (MIRA 10:9)
(School excursions) (Automobiles--Study and teaching)

KLIMENKO, N.M.; MOISEYEV, I.I.; SYRKIN, Ya.K.

Synthesis of a benzonitrile derivative of allylpalladium chloride.
Izv. AN SSSR. Otd.khim.nauk no.7:1355 J1 '61. (MIRA 14:7)

1. Institut tonkoy khimicheskoy tekhnologii im. M.V. Lomonosova.
(Palladium compounds)

KLIMENKO, N.M.; KRYLOVA, Ye.N.; MIKHALEVA, N.M.; CHURIKOV, Yu.I.; DYATKINA, M.Ye.

Computation of dicentric Coulomb integrals including 3d-, 4s-, and 4p orbitals. Zhur. struk. khim. 6 no.3:407-421 My-Je '65.

(MIRA 18:8)

1. Institut obshchey i neorganicheskoy khimii imeni N.S.Kurnakova
AN SSSR i Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni
M.V.Lomonosova.

KLIMENKO, N.M., inzh.; YAROSHINSKIY, G.K., inzh.

Transportation at the construction site. Energ.stroi. no.23:114-123
'61. (MIRA 15:1)

1. Nachal'nik Upravleniya zheleznodorozhnogo i vodnogo transporta
(for Klimenko). 2. Glavnyy inzh. Avtotransportnogo upravleniya
(for Yaroshinskiy).
(Kremenchug Hydroelectric Power Station--Transportation)

KLIMENKO, N.M.; DYATKINA, M. Ye.

Calculation of auxiliary functions $C_{\lambda\beta}^{\gamma\delta}$ (Pa, Pb), occurring in the determination of two-center molecular integrals for the arbitrary λ . Zhur. strukt. khim. 6 no. 4:604-613 J1-Ag '65 (MIRA 19:1)

1. Institut obshchey i neorganicheskoy khimii imeni N.S. Kurnakova AN SSSR i Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V. Lomonosova. Submitted December 12, 1964.

KLIMENKO, N.M.; DYATKINA, M.Ye.

Calculation of two-center molecular integrals including
ns-, np-, and nd-atomic orbitals. Zhur.strukt.khim. 6
no.5:755-764 8-0 '65. (MIRA 18:12)

1. Institut obshchey i neorganicheskoy khimii imeni N.S.
Kurnakova AN SSSR i Moskovskiy institut tonkoy khimicheskoy
tekhnologii imeni M.V.Lomonosova. Submitted December 12, 1964.

KLIMENKO, N.N. (Vladivostok); SHILOV, G.K. (Vladivostok)

Building multiple-story houses on weak soils. Osn., fund. i mekh.
grun. 3 no.4:18:21 '61. (MIRA 14:8)
(Vladivostok--Foundations)

ORATOVSKIY, V.I.; GAMOL'SKIY, A.M.; KLIMNIKO, E.N.

Composition of saturated vapor over aqueous solutions of arsenious sulfide at high temperatures. Zhur. prikl. khim. 37 no.11:2393-2398 N '64 (MIRA 18:1)

1. Donetskii filial Vsesoyuznogo nauchno-issledovatel'skogo instituta khimicheskikh reaktivov i osobo chistykh khimicheskikh reaktivov i osobo chistykh khimicheskikh veshchestv.

S/122/61/000/010/008/011
D221/D304

AUTHORS: Bereskin, V.G., Candidate of Technical Sciences, and
Klimenko, N.P., Engineer

TITLE: Effect of the angle of indentation on widening and
intensity of drawing during free forging with hammer
heads

PERIODICAL: Vestnik mashinostroyeniya, no. 10, 1961, 52 - 54

TEXT: The authors investigated the process of drawing in necking
dies to establish the relationship between the widening of blank
and the magnitude of feed and the angle of indentation in the die.
The geometrical form of die (hammer head) is defined by $B =$

$= \frac{2r}{\cos \frac{\varphi}{2}}$, where r is the radius of rounding, and φ is the angle of

indentation. Reduced widening is assumed so as to take into consi-
deration expansion in this involved section, and also for compar-
ing with the widening of the square blank pressed by flat hammer
heads. The reduced height and width of the initial round blank and
Card 1/4

S/122/61/000/010/008/011
D221/D304

.Effect of the angle of indentation ...

the section after pressing are defined by

$$h_1' = r \sqrt{\pi} \quad (3)$$

and

$$b_1' = \frac{F_1}{h_1'} \quad (4)$$

The widening was calculated according to

$$f = 1 - \frac{1}{\epsilon} (1 - \frac{1}{\gamma}). \quad (5)$$

In the above ϵ is the ratio of compression; γ is the amount of forging. The latter is determined as the ratio of sectional areas or lengths prior to and after forging, i.e. $\gamma = F_0/F_1 = L_1/L_0$. The relative feed is assumed to be the ratio of absolute feed to the initial width of blank $\psi = l_0/b_0 = l_0/2R$. Absolute feed l_0 is the length of part of the blank which is placed under the hammer head. Blanks were fed under different hammer heads with various feeds and almost equal ratio of compression ($\epsilon \approx 25\%$). Each batch of

Card 2/4

.Effect of the angle of indentation ...

S/122/61/000/010/008/011
D221/D304

blanks provided broken curves of relationship between coefficient f and the relative speed and the direct function of angle of indentation φ (Fig. 4). The graphs given show that the intensity of drawing is greater for flat hammer heads than in all types of indentation dies. Another deduction is that the reduced relationships possess different characteristics with various feeds. Hammer heads with a smaller angle of indentation become less universal, and the maximum possible ratio of compression decreases. The secondary compression after turning over produced greater widening. The widening during secondary compression does not depend upon the angle of indentation of the hammer head. This is due to the fact that the rhombic blank pressed edgewise is not subject to pressure of sides of indentation, and is compressed in the same manner as with flat hammer heads. More intensive drawing in indentation hammer heads as compared with flat heads takes place only with round blanks. The ratio of deformation during pressing and feeding is determined by the coefficient of thickening, $k = d'/2r$, where d' is the diameter of blank after second compression. This factor depends upon the angle of indentation of the hammer heads and rises with increase of

Card 3/4

Effect of the angle of indentation ...

S/122/61/000/010/008/011
D221/D304

feed ψ . Experimental values of the above can be applied for all rounded hammer heads. There are 5 figures and 2 Soviet-bloc references.

Fig. 4. Relationship between coefficient of widening and angle of indentation of hammer heads for various relative feeds.

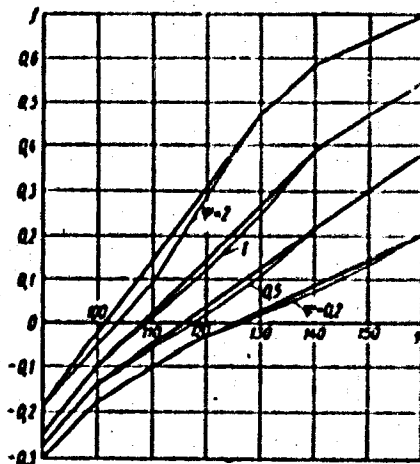


Рис. 4. Зависимость коэффициента уширения от угла погруза бойка при разных относительных подачах.

Card 4/4

BEHZKIN, V.O., kand.tekhn.nauk; ILIENKO, M.P., inzh.

Enlargement caused by drawing in grooved and flat dies with
edging. Vest.mash. 40 no.10:53-55 0'60. (MIRA 13:10)
(Drawing (Metalwork))

BEREZKIN, V.G., kand.tekhn.nauk; KLIMENKO, N.P., inzh.

Widening of billets with circular cross sections caused by
drawing in slotted dies. Vest.msh. 40 no.9:47-51 S '60.
(MIRA 13:9)

(Forging)

KLIMENKO, N.P., insh.

Maximum degree of reducing in cutting die blocks. Trudy Fruns.
politekh. inst. no. 6:167-176 '62. (MIRA 17:9)

BEREZKIN, V.G., kand.tekhn.nauk,dotsent; KLIMENKO, N.P., starshiy prepodavatel'

Central Asiatic Conference on Welding. Trudy Frunz. politekh.
inst. no. 6 213-214 '62. (MIRA 17:9)

RIMMER, I.M., TEMKIN, Z.A., KLIDENKO, N.S. (Pechenga, Murmanskoy oblasti)

Period of safe utilization of sterile dosage forms prepared in
a pharmacy for parenteral administration: Apt.delo 7 no.5:65-67
S-O '58 (MIRA 11:10)

(DRUGS--PRESERVATION)

KRESECHIK, V.S., insh.; KLIMENKO, O.O., insh.; TIRATSUYAN, A.V., insh.

Powder metal products and nylon plastics used in friction
units of agricultural machines. Mashinostroitel' no.2:31-32
F '60. (MIRA 13:5)

1. Tsentral'naya zavodskaya laboratoriya.
(Bearing metals) (Plastic bearings)

KLIMUKO, A.Z.; KLIMENKO, O.I.

Characteristics of some bacterial infections in rodents of the Transbaikalian Steppe. Mat. k posn. fauny i flory SSSR. Otd. zool. no.37: 155-162 '57. (MIRA 11:1)

(Transbaikalia--Rodentia--Diseases and pests)
(Pasteurella) (Salmonella)

KLIMENKO, O.I.

SHAPIRO, S.Ye.; KALMYKOVA, A.D.; KLIMENKO, O.I.; ZELFENSKAYA, M.I.; TIMOFEYINA, A.A.; GARBUSOV, M.M.

Incidence of tularemia in Khabarovsk region. Zhur.mikrobiol.epid. i immun. 29 no.2:21-24 F '58. (MIRA 11:4)

1. Iz kliniki infektsionnykh bolezney Khabarovskogo meditsinskogo instituta i Khabarovskoy protivouchumnoy stantsii.

(TULAREMIA, epidemiology,
in Russia (Rus))

KLIMENKO, O. S.

KLIMENKO, O.S.

Effect of a single general X-ray irradiation on the ascorbic acid content of the blood and tissues [with summary in English]. *Visiol. shur.* [Ukr.] 3 no.3:117-122 My-Je '57. (MIRA 10:8)
(X RAYS--PHYSIOLOGICAL EFFECT) (ASCORBIC ACID)
(BLOOD--ANALYSIS AND CHEMISTRY)

ZADOR, Andras, dr.; NAGY, Ostor, dr.; SEVICSEK, Pal, dr.; KLIMENKO,
Olga, dr.

On hepatitis in pulmonary tuberculosis patients. Tuberkulozis
16 no.4/5:147-149 Ap-May '63.

1. A Szamuely Tibor Tbc Gyógyintézet (igazgató: Korösi Andor dr.,
az orvostudományek kandidátusa) közleménye.

(TUBERCULOSIS, PULMONARY) (HEPATITIS)
(ANTITUBERCULAR AGENTS) (STREPTOMYCIN)
(ISONIAZID)

KLIMENKO, P.

KLIMENKO, P., instruktor po organizatsionnoy rabote.

Our gift on the occasion of the October Revolution. Za kul. no.10:
5.0 '57. (MIRA 10:11)

1. Vil'nyuskiy gorodskoy komitet DOSAAF.
(Vilnius--Automobile drivers)

BERGER, I.; IVANITSKIY, V.; KLIMENKO, P.

Experience in introducing new trade forms in the Ukraine.

Sov.torg. no.6:23-26 Ja '57.

(Retail trade)

(MLRA 10:8)

SOV/84-58-10-37/54

AUTHOR: Kotov, Ye., Chief of Enterprise, Klimenko P., Chief Engineer

TITLE: First Steps in a Joint Maintenance and Repair Enterprise
(Pervyye shagi v ob'yedinennom ekspluatatsionno-remontnom
predpriyatii)

PERIODICAL: Grazhdanskaya aviatsiya, 1958, Nr 10, pp 28-29 (USSR)

ABSTRACT: The article deals with a new joint maintenance and repair enterprise, the first in Aeroflot (Air Fleet), opened in January 1958. Established at the base of former line maintenance and repair workshops (LERM), its object was to eliminate duplication of work, cut administrative personnel, improve quality, reduce time in repair and technical servicing, and thus cut expenditures and man-hours. Previous attempts, dating back to the summer of 1957, had proved ineffective. The solution was finally found in setting up 2 complex brigades, assigned to the preparatory production shop,

Card 1/2

SOV/84-58-10-37/54

First Steps in a Joint Maintenance (Cont.)

which was provided with ample supplies of spare parts and materials and located close to the planes. The reorganization of the various shops and improved procedures resulted in an overfulfillment of the output plan and reduced production costs. The statistical comparison of output in repair and maintenance between the first 6 months of 1958 and the corresponding 1957 figures, demonstrated the effectiveness of a joint enterprise which utilized equipment and production area to a much larger degree. There are 3 photographs.

Card 2/2

KOTOV, Ye., nachal'nik remontnogo predpriyatiya; KLIMENKO, P., glavnyy
inspener remontnogo predpriyatiya

Continuous repair and assembling on stands. Grazhd. av. no. 3:24
Mr '61. (MIRA 14:3)

(Airplanes--Maintenance and repair)

KLIMENKO, P. (Kiyev)

Economic efficiency of the new forms of trade. Sov. t.rg. 35
no.10:31-34 0 '61. (MIRA 14:12)
(Ukraine—Retail trade)

KLIMENKO, P.A., brigadir.

~~SECRET~~
Under every condition. Nauka i pered. op. v sel'khoz. 7 no.5:41
My '57. (MIRA 10:6)

1. Vtoraya polavodcheskaya brigada kolkhosa "Chervonyy prapor".
(Corn (Maize))

S/226/63/000/002/004/014
A006/A101

AUTHORS: Chekmarev, A. P., Klimenko, P. A., Vinogradov, G. A.

TITLE: Investigating specific pressure, specific friction, and the friction coefficient in rolling metal powders

PERIODICAL: Poroshkovaya metallurgiya, no. 2, 1963, 26 - 31

TEXT: The measurements of the aforementioned parameters were carried out with the aid of three spot dynamometers with wire pickups, operating on tension. The powders were rolled in the horizontal direction on a mill, $D = 208$ mm, at 10.7 m/min velocity. The central dynamometer was placed in the radial direction, the two other dynamometers were placed at the ends at an angle of 45° to the central one. The readings were oscillographed. It was found that the nature of distribution of the specific pressure did not depend upon the rolled metal-powder type, and the thickness and width of strip. The magnitude of pressure varied with changing roll opening and granulation of the powder. With greater roll opening and thickness of the strip, specific pressure decreases from 3.50 t/cm^2 at a 0.75 mm thick strip of 5.8 g/cm^3 density to 1.00 t/cm^2 at 1.25

Card 1/2

8/226/63/000/002/004/014

Investigating specific pressure, specific friction,... A006/A101

and 4.2 respectively. The specific friction force τ is proportional to specific pressure $\tau = fp$ (f = the friction coefficient) in the backward and forward zones of the deformation seat; in the adhesion zone, relative metal slip along the rolls does not take place. The friction force is then not proportional to specific pressure. The specific friction force increases with reduced thickness of the strip. The friction coefficient and specific friction force are distributed non-uniformly along the grip arc. Mean value of the friction coefficient determined was $f = 0.24$ in rolling AIDKM (APZHM) powder on steel rolls. Vinogradov's data, submitted in a previous article, on the decrease of specific pressure with greater thickness of the rolled powder strip, are experimentally confirmed. The increase of the strip thickness results from a higher total pressure upon the rolls. There are 6 figures and 1 table..

ASSOCIATION: Dnepropetrovskiy metallurgicheskiy institut i Institut metallo-keramiki i spetsial'nykh splavov AN USSR (Dnepropetrovsk Metallurgical Institute and the Institute of Sinters and Special Alloys of AS UkrSSR)

SUBMITTED: July 4, 1962

Card 2/2

CHEKMAREV, A.P.; KLIMENKO, P.A.; VINOGRADOV, O.A.

Pressure and the friction coefficient in rolling metal powders.
Trudy LPI no.222:53-57 '63. (MIRA 16:7)
(Rolling (Metalwork)) (Powder metallurgy)

KLIMENKO, P.K., insh.

Cutting billets without waste. Mashinostroenie no.6:73 N-D '65.
(MIRA 18:12)

KLIMENKO, P.L.

Some causes of the nonlinearity of spectrophotometer scales and their elimination. Prib. i tekhn. eksp. 9 no.1:160-164 Ja-P '64. (MIRA 17:4)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut ugol'noy, rudnoy, neftyanoy i gazovoy promyshlennosti UkrSSR.

KLIMENKO, P.L.

PRIKHODKO, A.F.

24(7) 13 PHASE 1 BOOK EXPLOITATION 807/1365

• L'vov. Universitet

Materialy I Vsesoyuznogo soveshchaniya po spektroskopii. 3. 1: Molekulyarnaya spektroskopiya (Papers of the 10th All-Union Conference on Spectroscopy. Vol. 1: Molecular Spectroscopy) [L'vov] Izd-vo L'vovskogo univ-ta, 1977. 399 p. 4,000 copies printed. (Series: Itogi nauki i tekhn. Seriya fiziko-matematicheskie nauki, v. 14, no. 1, 1977, p. 1-399, 4,000 copies printed.)

Additional Sponsoring Agency: Akademiya nauk SSSR. Komissiya po spektroskopii. Ed.: Gaser, S.L.; Tash. Ed.: Sarayuk, V.V.; Editorial Board: Lomistov, G.S., Academician (Resp. Ed., Deceased), Kuperst, S.S., Doctor of Physical and Mathematical Sciences, Pablinitskiy, I.L., Doctor of Physical and Mathematical Sciences, Pablinitskiy, V.S., Doctor of Physical and Mathematical Sciences, Kuznetsov, V.S., Candidate of Technical Sciences, Kuznetsov, S.M., Candidate of Physical and Mathematical Sciences, Klimovskiy, L.N., Candidate of Physical and Mathematical Sciences, Kliyumbekov, V.S., Candidate of Physical and Mathematical Sciences, and Klyumbekov, A. Ye., Candidate of Physical and Mathematical Sciences.

Card 1/30

Bisner-Kleber, V.I., and A.D. Shakhovskiy. Registering Device for Infrared Spectrometers	402
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Klimenko, P.L., and G.V. Palkovskaya. Infrared Radiation Polarizers	407
Palkovskaya, I.A. Analyser Based on the SP-1 Spectrometer	409
Mikitin, V.N., B.S. Valchuk, and M.V. Val'manastov. Using Infrared Polarized Light in Determining the Orientation of Polymers	411
Palkovskaya, Ye. I. Variations in the Infrared Spectrum of Crystalline Polymers During Melting	416

Card 2/30

SOV/137-59-3-6743

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 3, p 258 (USSR)

AUTHORS: Chekmarev, A. P., Kapturov, L. Ye., Klimenko, P. L.

TITLE: An Experimental Investigation of the Specific Pressures During Rolling in Plain and Grooved Rolls (Eksperimental'noye issledovaniye udel'nogo davleniya pri prokatke na gladkoy bochke i v kalibrakh)

PERIODICAL: Tr. Mezhvuz. nauchno-tekhn. konferentsii na temu: "Sovrem. dostizh. prokatn. proiz-va". Leningrad, 1958, pp 20-28

ABSTRACT: The specific pressure (SP) was measured with the aid of circular wire resistance strain gages which were attached to the exterior surface of a thin-walled dynamometer cylinder mounted in the roll, as well as to an area on the surface of the cylinder which was not subjected to deformation (compensating gage). It was established, in the course of rolling (R) of lead strips (22, 16, 10, 6, 4, and 2 mm thick, and 20, 35, 50, and 100 mm wide) at reductions ranging up to 60%, that the width of the strip does not appreciably affect the nature of distribution of the SPs along the length of the contact area. In all instances, the magnitude of the SP diminishes toward

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Dnepropetrovsk Metallurgical Inst.

SOV/137-59-3-6743

An Experimental Investigation of the Specific Pressures During Rolling (c. t.)

the edge of the strip; for strips 50 mm wide or wider, the value of the SP on the center of the strip remains constant. Hot R of strips of 08KP steel (22, 16, 10, 6, and 4 mm thick and 50 mm wide) at various temperatures substantiated the assumption that temperature variations affect the magnitude of the SP but do not influence its distribution along the width and the length of the contact area. A comparison between the experimental data and the results obtained with the aid of formulas by A. I. Tselikov, A. A. Korolev, and Ekelund demonstrates that the theoretical values of the SP's computed by the formulas of Tselikov and Korolev are very close to the experimental values, but that the same values computed with the aid of the Ekelund formula are considerably lower. Diagrams of the distribution of the SP's are presented for the following conditions: Distribution of SP's along the contact arc during R of a horizontal oval, a square, a vertical oval, and a circular shape 40 mm in diameter through an oval pass opening (PO); distribution of maximum SP's along the width of an oval PO during R of shapes of square and circular cross section; distribution of maximum SP's across the width of a circular PO during R of an oval shape as well as the distribution of maximum SP's across the width of a square PO during R of oval and diamond shapes.

V. D.

Card 2/2

AUTHORS:

Chekmarev, A. P., Klimenko, P. L.

SOV/163-58-1-22/53

TITLE:

Experimental Method for the Determination of the Specific Frictional Forces and of the Frictional Coefficients by the Gripping Device in Rolling (Eksperimental'nyy metod opredeleniya udel'noy sily treniya i kooffitsiyenta treniya po duge zakhvata pri prokatke)

PERIODICAL:

Nauchnyye doklady vysshey shkoly. Metallurgiya, 1958, Nr 1, pp 117-121 (USSR)

ABSTRACT:

A method was devised for the direct determination of frictional forces and frictional coefficients on the basis of the determination of the specific forces of the pressure on the rolls in the rolling process. For experimentally determining the specific frictional forces it is necessary to calculate three magnitudes at the same time, viz. the radial specific pressure P and the forces F_1 and F_2 . The forces F_1 and F_2 are variable, and are functions of the angle α . The angle ϵ is calculated from the experimental determination of the forces F_1 and F_2 .

$$\epsilon = \arctg \frac{F_2}{F_1}$$

Card 1/2

SOV/163-58-1-22/53

**Experimental Method for the Determination of the Specific Frictional Forces
and of the Frictional Coefficients by the Gripping Device in Rolling**

The specific frictional force is expressed by the equation
 $\tau = p \operatorname{tg} \beta$ (3).

The frictional coefficient is calculated by means of the equation
 $\mu = \operatorname{tg} \beta = \frac{\tau}{p}$.

The experiments were carried out by means of a roll with a diameter of 270 mm.

The specific pressure and the coefficients of the internal and external friction in rolling at a gripping angle of $\alpha = 11^\circ$ and $\alpha = 6^\circ$, and at a length of the gripping device of $l_D = 25,6$ mm and $l_D = 15,0$ mm were determined, and the results were graphically represented. There are 6 figures.

ASSOCIATION: Dnepropetrovskiy metallurgicheskiy institut (Dnepropetrovsk Metallurgical Institute)

SUBMITTED: October 7, 1957

Card 2/2

KLIMENKO, P. L., Cand Tech Sci (diss) -- "Investigation of the specific pressure and specific friction in rolling". Dnepropetrovsk, 1959. 20 pp
(Min Higher and Inter Spec Educ Ukr SSR, Dnepropetrovsk, Order of Labor Red Banner Metallurgical Inst im I. V. Stalin), 150 copies (KL, No 12, 1960, 127)

CHEKMAROV, A.P., akademik; SMOL'YANINOV, A.P., inzh.; KLIMENKO, P.L., inzh.

Investigating pressure during rolling with variable radius rolls.
Izv. vys. ucheb. zav.; Chern. met. 2 no.4:65-72 Ap '59.
(MIRA 12:8)

1. Dnepropetrovskiy metallurgicheskiy institut. 2. AN USSR
(for Chekmarev).
(Rolling (Metalwork)) (Deformations (Mechanics))

KLIMENKO, P.L

NOTICE OF DEATH

U.S. DEPARTMENT OF JUSTICE

Дискографический. Металлографический отдел.

Орбис металлов devianum (metal Periodic) (Kear, W., Metallurg. Indus. 1940). 326 p. (Series: Ita: Metallurg. Indus. 779. 32).

2,100 copies printed.

Ed.: A. P. Chinnarovi, Ed. of Publishing House: S.A. Bellas; Tech.
 2,100 copies printed.
 2,100 copies printed.

Ed. J. P. Anderson.

This collection of articles is intended for technical personnel in industry and in mechanical engineering and scientific personnel in military and in rolling equipment. It will also be of interest to designers of rolling equipment. It will also be of interest to designers of rolling equipment.

1962.

1962.

1962.

[illegible]

Summary, A.P. (Academicheskii Institut, Sverdlovsk). Experimental Investigation of Rolling of Elastic Surfaces on a Rigid Surface. (Russian). Preprints of a Scientific Conference on Rolling in Plants, Sverdlovsk, 1964.

The investigation was carried out to develop a reliable method for measuring unit pressure on the contact surface, and to obtain quantitative data on distribution of unit pressure along the contact surface. The method proposed makes it possible to obtain, by measurement, the graphs of stresses having various shapes during rolling with and without lubrication.

Chemistry, A. P., and F. H. L. Experimental Investigation of Initial Thicknesses and Widths of the Contact Surface During Lubrication of Ball Bearings. *Transactions of the American Society of Mechanical Engineers*, 1930, Vol. 52, No. 1, p. 1-10.

[illegible]

chambers, and for various
 details. (Conditions of Technical Release). Proceed on
 basis of Military Billings of Funds on a Short Standard
 The author compares experimental data on the initial and final
 procedure with the results obtained through using formulae the
 author has obtained. M. M. 54-112.

author derives.
Chemistry, A. P. V. Plastics, V. I. Polymers, Plastics on
and Plastics (Engstrom).
L. P. Chemistry, and Plastics, and results of
the Plastics mill.
The authors describe the methods, instruments, and results of
the Plastics mill.
The Plastics mill is the "superior" mill on
the Plastics mill, and the Plastics mill is the Plastics mill.

an investigation of the effect of horizontal and vertical rolls on cold rolling. [Committee of Technical Personnel, Experimental Investigation of the Effect of Horizontal and Vertical Rolls on Cold Rolling, 1950, 100 pages, 100 copies.]

gives the term $\frac{1}{2} \pi$ and a π thick at various angles θ (see fig. 1, 2, 3). and a π thick at various angles θ (see fig. 1, 2, 3). and a π thick at various angles θ (see fig. 1, 2, 3).

apart to forward side, and the other to rear side, and the right-angled, square, rhombic, oval, and elliptical shapes.

It is based on transverse and longitudinal sections
contact area is transverse

CHEKMAROV, A.P., akademik; KAPUROV, L.Ye., inzh.; KLIMENKO, P.L., inzh.

Experimental investigation of the specific pressure distribution
on contact surfaces in rolling with plain rolls. Nauch. trudy DMI
no.39:5-29 '60. (MIRA 13:10)

1. AN USSR (for Chekmarev).
(Rolling (Metalwork))

CHEKMAREV, A.P., akademik; KILIMSKO, P.L., inzh.

Experimental investigation of the specific pressure distribution on contact surfaces in rolling with grooved rolls. Nauch. study IMI no.39:30-52 '60. (MIRA 13:10)

1. AN USSR (for Chekmarev).
(Rolling (Metalwork))

S/137/61/000/006/026/092
AC06/A101

AUTHORS: Chekmarev, A.P., Kapturov, L.Ye., Klimenko, P.L.
TITLE: Experimental investigation of the distribution of specific pressure over the contact surface during rolling on smooth rolls
PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 6, 1961, 1 abstract 6D4 ("Nauchn. tr. Dnepropetr. metallurg. in-t", 1960, no. 39, 5 - 29)

TEXT: The authors substantiate a method selected for investigating specific pressures with the aid of a dynamometer functioning with a glued-on wire resistance pickup of a surface subjected to stretching. The investigations were made on a laboratory two-high mill with rolls of 260 mm diameter and 350 mm length. The experimental methods are described in detail. Pb-strips of 22, 16, 10, 6, 4 and 2 mm thickness, 50, 35 and 20 mm width, and 350 mm length each, were rolled, and it was established that: 1) specific pressures are non-uniformly distributed across the deformation seat; over its length they are highest in the center and least at the edges; 2) the absolute magnitude of specific deformation decreases with a reduced width of the strip; 3) during rolling of thick strips with a reduction of $\leq 23\%$ tensile stresses arise which entail a decrease

Card 1/2

Experimental investigation ...

S/137/61/000/006/026/092
A006/A101

of specific pressure on the contact surface. To investigate the distribution of specific pressure during non-uniform deformation, special concave and convex Pb-specimens were rolled. It was found that compressive stresses increased the specific pressure in strip sections subjected to stronger compression and that tensile stresses reduced the specific pressure in less compressed sections of the strip.

V. Pospekhov

[Abstracter's note: Complete translation]

Card 2/2

S/137/61/000/006/034/092
A006/A101

AUTHORS: Chekmarev, A.P., Klimenko, P.L.

TITLE: Experimental investigation of the distribution of specific pressure on the contact surface in groove rolling

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 6, 1961, 4, abstract 6D26 ("Nauchn. tr. Dnepropetr. metallurg. in-t", 1960, no. 39, 30-52)

TEXT: Investigations were made on a two high mill with 270 mm diameter rolls. The distribution of specific pressure on oval, round and square grooves was studied. Specific pressure was measured with the aid of special dynamometers with wire pickups. It was established that: 1) during rolling of square and rectangular blanks or of an oval blank on the flat side, least specific pressure occurred in the center and maximum pressure on the edges. During rolling of a round blank a reverse phenomenon was observed. 2) When rolling an oval blank in a round groove maximum specific pressure was observed in the center and least pressure on the edges; 3) During rolling in a square groove of a rhombic blank maximum specific pressure was observed at the vertex of the groove

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Experimental investigation ...

and least pressure on the edges. A method is suggested for determining contact surfaces from the actual length of the grip arc with the aid of oscillograms of specific pressure. See RZhMet. 1961, 6D4.

S/137/61/000/006/034/092
A006/A101

[Abstracter's note: Complete translation]

V. Pospekhov

Card 2/2

CHEKMAREV, A.P.; KLIMENKO, P.L.

Distribution of roll pressure and specific friction along the arc
of contact during rolling. Izv. vys. ucheb. zav.; Chern. met.
no.2:68-76 '61.

(MIRA 14:11)

1. Dnepropetrovskiy metallurgicheskiy institut.
(Rolling (Metalwork))

30749

Z/011/61/018/012/003/007
E073/E535

11.0910

AUTHORS: Savinov, B.G. and Klimenko, P.L.
TITLE: Study of the stability to thermal oxidation of the oil AMG-10 by means of infrared spectroscopy
PERIODICAL: Chemie a chemická technologie; Přehled technické a hospodářské literatury, v.18, no.12, 1961, 560, abstract Ch61-7747 (Khimiya i tekhnologiya topliv i masel, no.5, 1961, 60-63)
TEXT: The infrared absorption spectrum of the hydraulic fluid AMG-10 changes considerably as a result of oxidation by air at 200°C. The location of the absorption bands is given, these correspond to the formation of carbonyl compounds, esterification and the formation of oxidation products of the OH group. 3 figures, 4 references.
[Abstractor's note: Complete translation.]

Card 1/1

X

SAVINOV, B.G.; KLIMENKO, P.L.

Infrared spectroscopic study of the stability of AMG-10 oil to
thermal oxidation. Khim. i tekhn. topl. i masel 6 no.5:60-63
My '61. (MIRA 14:5)

1. Kiyevskiy institut GVF.
(Lubrication and lubricants—Testing)

S/080/62/035/002/016/022
D258/D302

AUTHORS: Savinov, B. G., Chertkov, Ya. B. and Klimenko, P. L.

TITLE: Study of the structure of nitrogen and oxygen-containing compounds in ligroin-kerosene petroleum fractions by the method of infra-red spectra

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 2, 1962, 398-404

TEXT: The authors' aim was to study the little known structures of N- and O-containing constituents present in both straight distillates and cracking products of petroleum fuels. This was done in view of the relative ease of isolation and the possible economic value of these compounds. Kerosene fractions of T-1 and TC-1 (T-1 and TS-1) fuels and cracking products of both high and low S-contents were passed through activated silica gel columns and the residual non-hydrocarbons were first eluted with alcohol benzene, then freed of S compounds and finally purified on activated alumina. A comparison of the infra-red spectra showed the presence of aromatic and heterocyclic structures in all samples. Oxygen was

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CHEKMAREV, A. P., akademik; SMOL'YANINOV, A. P., kand. tekhn. nauk;
KLIMENKO, P. L., kand. tekhn. nauk; MALYY, Yu. O., inzh.

Pressure in rolling between rolls with a variable radius.
Nauch. trudy DMI no.48:167-173 '62. (MIRA 15:10)

1. Akademiya nauk Ukrainskoy SSR (for Chekmarev).

(Rolling(Metalwork))

S/148/63/000/001/007/019
E193/E383

AUTHORS: Chekmarev, A.P., Smol'yaninov, A.F., Klimenko, P.L.
and Lebedik, G.L.

TITLE: Roll-pressure during rolling in rolls with varying radius

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Chernaya metallurgiya, no. 1, 1963, 78 - 88

TEXT: The investigation reported in the present paper was carried out on stand 330, equipped with rolls whose design is shown in Fig. 1 (roll with varying radius). A roll of this type comprised 4 segments with constant radii ($R_{\max} = 199.5$ mm and $R_{\min} = 184.75$ mm), joined by 4 intermediate segments with varying radii, the tangent of the taper angle ($\tan \psi$) characterizing these segments being 0.1, 0.2, 0.3 and 0.4. The experiments were conducted on lead and steel specimens measuring, respectively, 43 x 40 and 45 x 40 mm. The roll-pressure was measured with the aid of dynamometers mounted in the rolls and measuring the forces normal to the roll surface. 3 dynamometers were mounted in each intermediate segment in sections I, II and III with one dynamometer

Roll-pressure during rolling

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E193/E383

mounted in the neighbouring segments with constant radii (sections IV and V); the positioning of sections I-V in and near the segment with $\tan \psi = 0.1$ and 0.2 is shown in Fig. 2; the positioning of dynamometers in the other two segments was similar. Setting of the rolls was such that the reduction given to the rolled specimen in passing between sections of rolls with constant radii (R_{\min} and R_{\max}) remained constant in each series of experiments, the reduction in the segments with R_{\min} being 5 mm for the lead and 6 mm for steel specimens. For comparison, the roll pressure was also determined during rolling on three stands with rolls of constant radii equal to the radii of the experimental rolls at points at which the dynamometers were mounted in segments with varying radii. Experiments on lead were conducted at room temperature and steel specimens were rolled at 1050°C . The results (all of which are reproduced graphically in the form of curves showing the distribution of roll-pressure in various segments of the rolls) can be summarized as follows: 1) in rolling under conditions of increasing reduction the roll pressure

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Roll-pressure during rolling

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E193/8383

P increases on passing from section I to section III in each of the intermediate segments. In the case of lead, the maximum roll pressure for sections I and II, the segment with $\tan \psi = 0.1$, is 4.5 and 7.8 kg/mm², respectively, the corresponding figures for the segment with $\tan \psi = 0.2$ being 3.8 and 7.2 kg/mm². This effect is caused by the fact that on passing from section I to section II, the absolute reduction in thickness increases (from 0-29 mm in the case of lead) and so does the deformation rate; 2) the roll pressure in section I is practically the same for all values of $\tan \psi$; the value of P in section II of the segment with $\tan \psi = 0.1$ is higher than in the three remaining segments. 3) in section III decreases with increasing $\tan \psi$; 3) the conditions during rolling of lead in segments with $\tan \psi = 0.3$ and 0.4 are such that the contact angle is smaller than the friction angle. The effect of $\tan \psi$ on P during rolling of steel is less pronounced than in the case of lead because the condition in the former case are such that the contact angle is practically equal to the friction angle; 4) the effect of $\tan \psi$ on P is also less pronounced during rolling under conditions of decreasing reduction. In this case,

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Roll-pressure during rolling

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E193/E383

the pressure exerted on the rolls by lead in section I is the same for segments with $\tan \psi = 0.1$ and 0.2 ; in segments with $\tan \psi = 0.3$ and 0.4 slipping takes place in section I because the contact angle is then considerably larger than the friction angle. P in sections II and III decreases with increasing $\tan \psi$; 5) owing to the geometry of the intermediate segments P the repelling forces during rolling under conditions of decreasing reduction increase with increasing $\tan \psi$; since the tensile stresses also increase due to the fact that the contact angle exceeds the friction angle, the roll pressure under these conditions should decrease with increasing $\tan \psi$. There are 6 figures.

ASSOCIATION: Dnepropetrovskiy metallurgicheskiy institut
(Dnepropetrovsk Metallurgical Institute)

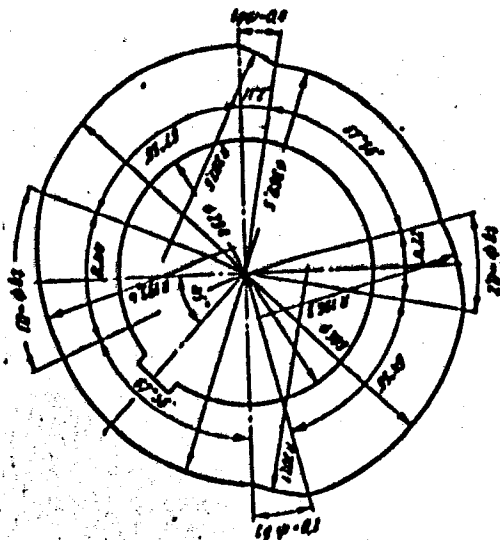
SUBMITTED: August 10, 1961

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Roll-pressure during rolling

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E193/E383

Fig. 1:



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